

REMARKS

The Office Action has been carefully reviewed in light of the cited references and the Examiner's comments, and accordingly, applicants are replacing claims 24-30, 32, 33 and 35 with new claims 36-43 to distinguish applicants' invention more clearly and to place this application in condition for allowance. New claim 43 is a combination of claim 32 and allowable claim 33, and new claim 42 is a combination of claim 28 and allowable claim 29. Thus new claims 42 and 43 should be in condition for allowance with claim 34, the allowability of which is hereby noted.

In reference to new claim 36, applicants' patio door assembly includes a first door panel and a swinging second door panel within the main frame with the door panels each including a rectangular door panel frame of rigid plastic material with welded corners and supporting a glass panel, each of the rectangular door panel frames including door frame extrusions each having a rectangular cross-sectional configuration, each door frame extrusion having longitudinally extending parallel spaced outer side walls and spaced inner walls integrally connected by longitudinally extending transverse walls defining a lateral width for said frame extrusion substantially greater than the thickness defined by said outer side walls, each door frame extrusion including a laterally inwardly projecting integral flange and a removable glazing bead extrusion spaced from the flange and receiving the corresponding glass panel therebetween, a door latch mechanism disposed between the inner walls of the door panel frame of the second door panel, a hinge having an inactive leaf secured by threaded fasteners to the astragal extrusion, and the hinge having an active leaf secured by threaded fasteners threaded into the spaced transverse walls of an adjacent frame extrusion of the second door panel.

Applicants have carefully reviewed the newly cited reference of Lynn et al '017 along with the disclosures of Yane '947 and other cited references and are unable to find any suggestion or teaching of applicants' patio door assembly including the above structure set forth in new claim 36. For example, the window sash frame disclosed in Lynn et al '017 and having an H-shaped cross-sectional profile may be suitable for a sliding window or sliding door. However, the sash frame would not provide the strength and rigidity for a patio door assembly including a swinging door panel with a door panel frame as called for above in new claim 36. Furthermore, none of the references teach applicants' hinge having an active leaf

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secured by threaded fasteners threaded into the spaced transverse walls of an adjacent frame extrusion of the swinging second door panel.

The references also fail to suggest or teach the additional structure of applicants' patio door assembly, such as, a hinge having an inactive leaf longer than the active leaf to provide the advantages set forth in new claim 37, or the continuous gear hinge recited in new claim 38, or the structure of applicants' astragal extrusion, as called for in new claim 39 and described in connection with FIG. 5. The jamb members disclosed in Novak '223 do not suggest the astragal structure of new claim 39, and the threaded fasteners disclosed in Dallaire '387 are used to secure a fixed rail 42 to the top wall of the sill 32.

New claim 40 is directed to the construction of applicants' sill extrusion (16) of plastic material on which is mounted a metal approach extrusion (38) including an integral inner portion (41) defining an inwardly facing groove, and an elongated horizontal door seal (36) extending within the groove and having an inwardly projecting flexible portion disposed above a horizontal channel in the sill extrusion and in pressure contact with the door frame. Applicant's find nothing in FIG. 5 of Yane '947 suggesting this structure of new claim 40. New claim 41 is directed to the insert strip 46 disclosed in connection with FIG. 3 and which is attached by a snap-fit to exterior portions of the head and jamb extrusions and which includes a laterally inwardly projecting flange cooperating with the head and jamb extrusions to define a channel for receiving a sliding screen door frame. Neither FIG. 2 nor FIG. 5 of Dallaire '387 suggests this structure of new claim 41.

For the above reasons, applicants believe that each of new independent claims 36 and 43 and the new claims dependent from claim 36 defines a patio door structure which is clearly distinguished from the references. Accordingly, applicants believe that these claims are in condition for allowance with claim 34, and respectfully requests that this application be passed to issue.

Respectfully submitted,

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